

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year II Semester Regular Examinations August-2023

DAIRY AND FOOD ENGINEERING
(Agricultural Engineering)

Time: 3 Hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 Discuss about colour, flavor and refractive index of milk also define overrun with related expressions. CO2 L2 12M

OR

- 2 a What are the important properties of milk, which affect the processing CO2 L1 5M
b Explain the factors which are affecting composition of milk CO2 L2 7M

UNIT-II

- 3 a Draw the process flow chart for preparation of pasteurized milk and sterilised milk (In-bottle sterilization) CO3 L2 8M
b Draw the process flow chart for preparation flavoured milk. CO3 L2 4M

OR

- 4 a Define Sterilization. Explain the difference between the conventional canning and aseptic processing. CO3 L2 6M
b Explain Hydrostatic retort with neat sketch. CO3 L2 6M

UNIT-III

- 5 a Define (i) Butterfat (ii) AMF (iii) Butter oil (iv) Butter CO2 L1 6M
b Draw the flow chart for butter manufacture and state the principal equipment used. CO2 L2 6M

OR

- 6 a What are the points considered during selecting the location of building for dairy plant. CO4 L1 6M
b What is the importance of site selection in dairy plant design. CO4 L1 6M

UNIT-IV

- 7 a Explain the short tube and long tube evaporators with neat sketch. CO6 L1 6M
b Write about different types of evaporators. CO6 L2 6M

OR

- 8 a Define evaporation. Write the objectives of evaporation. CO6 L1 4M
b What are the basic functions of an evaporator? Also show the basic components of the evaporation system in sketch form. CO6 L2 8M

UNIT-V

- 9 a Discuss membrane processing and write the uses of membrane filtration. CO6 L1 6M
b Explain ultra filtration and write the characteristics of ultra filtration. CO6 L2 6M

OR

- 10 Explain the changes occurred during heating, evaporation, drying and freezing of a food component CO6 L2 12M

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